



CASE



Australian Government

National
Landcare
Program



BACKGROUND

The landholders run 3000 hens and 200 head of cattle. They are committed to a chemical-free, no antibiotics or growth hormones, GMO-free and no feed supplements farm management.

The aim of the trial was to sow a multi-species crop across a historical sugar cane area, to improve soil health and biodiversity. Prior to planting, soil tests showed a pH of 6.04 and a low soil organic carbon of 1.57%. The soil has a loamy texture.



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STUDY

QUICK FACTS

Trial

Multi-species cover crop field trial to restore soil health

Location

Brightly, QLD (40 km from Mackay)

Elevation

70 m

Average rainfall

1500 mm per year

Operation

Grazing and egg production

SITE PREPARATION

The site was prepared in February 2021 for planting in March 2021. There was no established cover crop in place at the time of planting. The site was slashed, then seeds were sowed using a stubble warrior planter. The seed mix was planted at a density of 35 kg/ha, with a row width of 35 cm. The total cost of the multi-species planting trial was \$4000, including \$3,400 for the seeds and \$600 for fuel and labour.

The trial was a success in terms of the seed germination rate, species growth, and overall pasture diversity.



Follow-up soil tests still need to be taken to find improvements to soil health.

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SPECIES AND TREATMENTS USED

SPECIES	TREATMENT
Forage sorghum	NutriSoil biological solution (Vermiculture extract made from animal, plant and ocean nutrients).
Cow pea (treated with cow pea inoculant)	
Millet	
Oats	
Commander chicory	Gaucho, Thiram and inoculated with a live micro-organism.
Falcon turnip	
Green leaf desmodium	
Margarita serranella	
Morava vetch	

OBSERVATIONS

The region received typical rainfall during seeding (165.4 mm recorded in March 2021). After seeds had germinated, the region received above average rainfall (212.8 mm recorded in April 2021). A soil test will be taken 12 months post seeding to monitor changes in soil health.

MARCH 2021: GERMINATION



APRIL 2021: ESTABLISHMENT



APRIL 2021: SORGHUM AND COW PEA



MAY 2021: CATTLE GRAZING TRIAL SITE



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